Elevate Labs (Cyber-Security Internship)

Task 8: Identify and Remove Suspicious Browser Extensions

**Objective:** Understand the role of VPNs in protecting privacy and secure communication.

Tools: Free VPN client (ProtonVPN free tier, Windscribe free)

Deliverables: Report describing VPN setup steps and connection status screenshot.

Report:

- Windscribe VPN (Virtual Private Network):

Step 1: Download Windscribe VPN from official website for FREE, based on your Operating-System (OS).
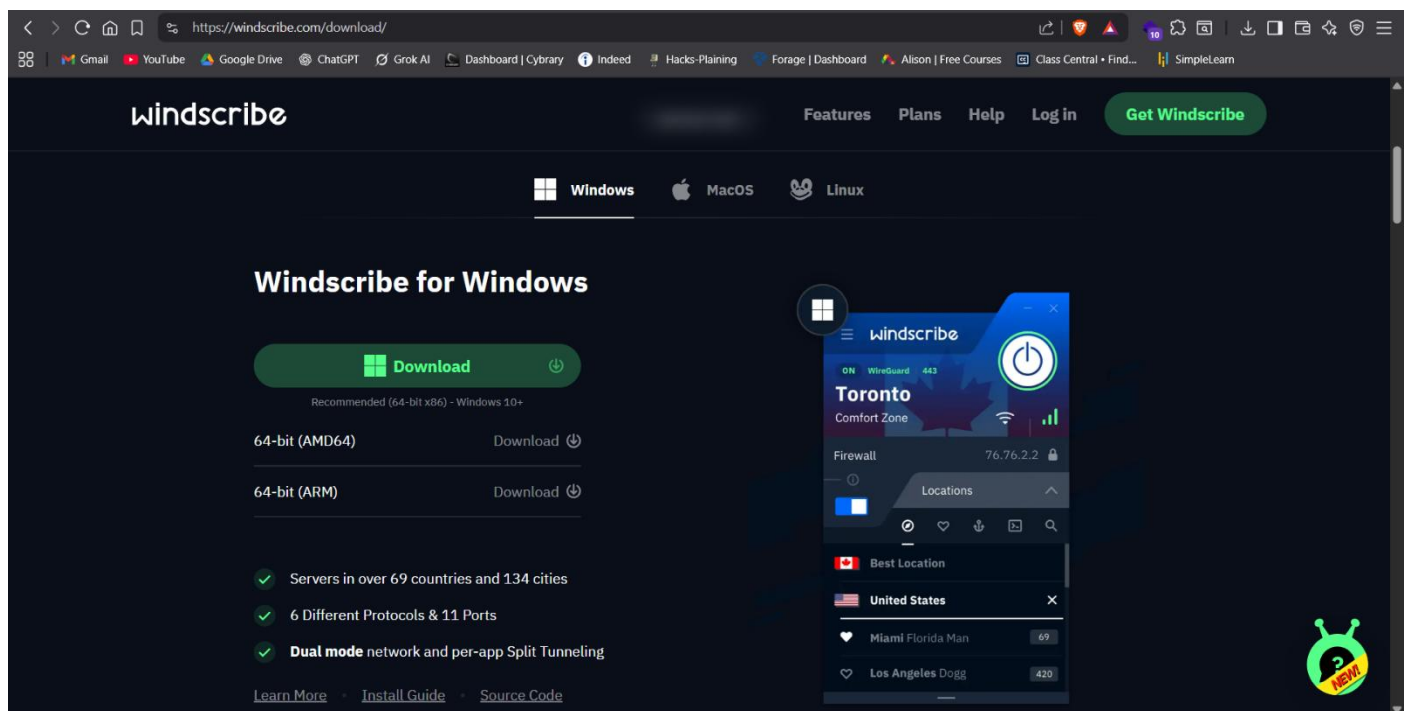
Step 2: Now, we will SET-UP an Account for Windscrive VPN.
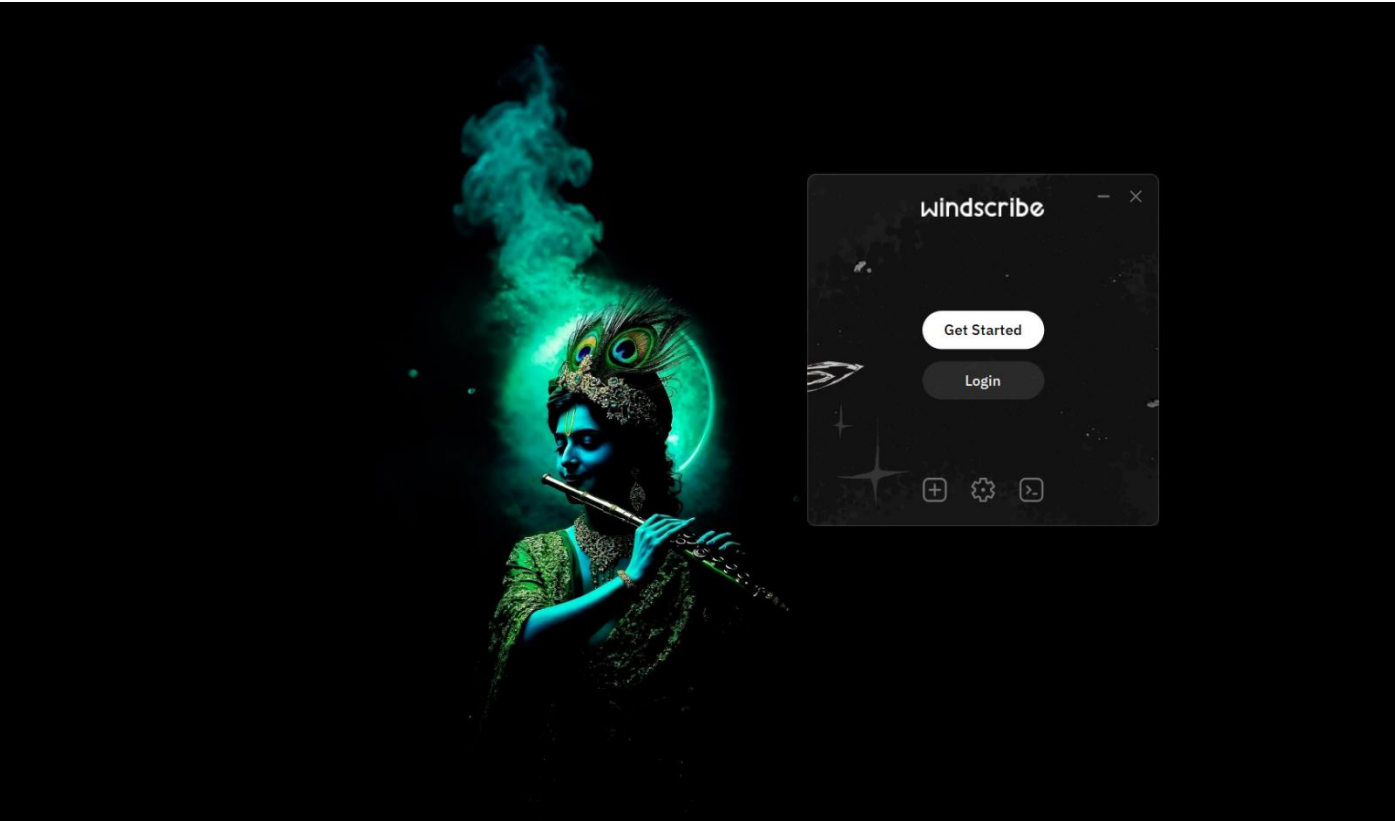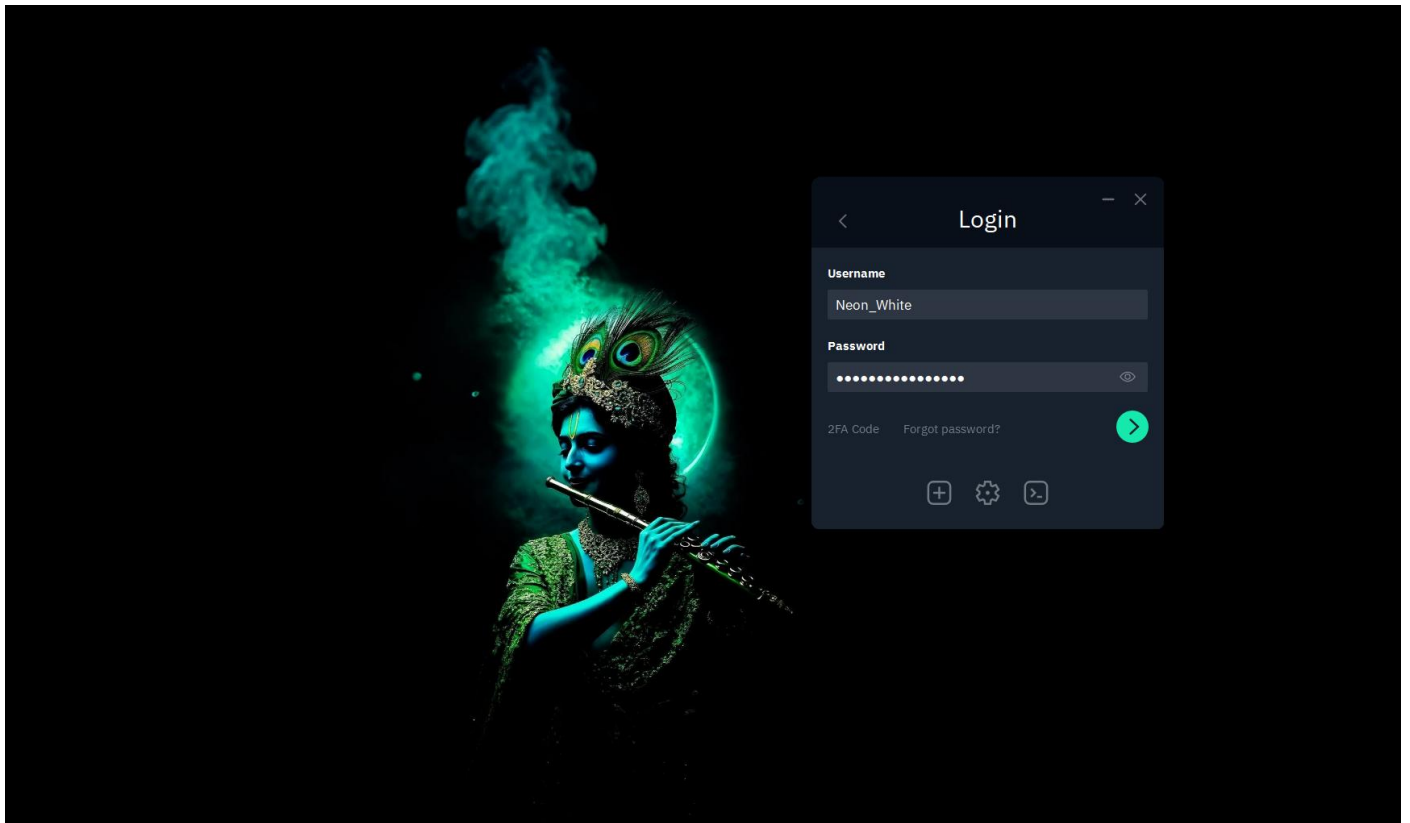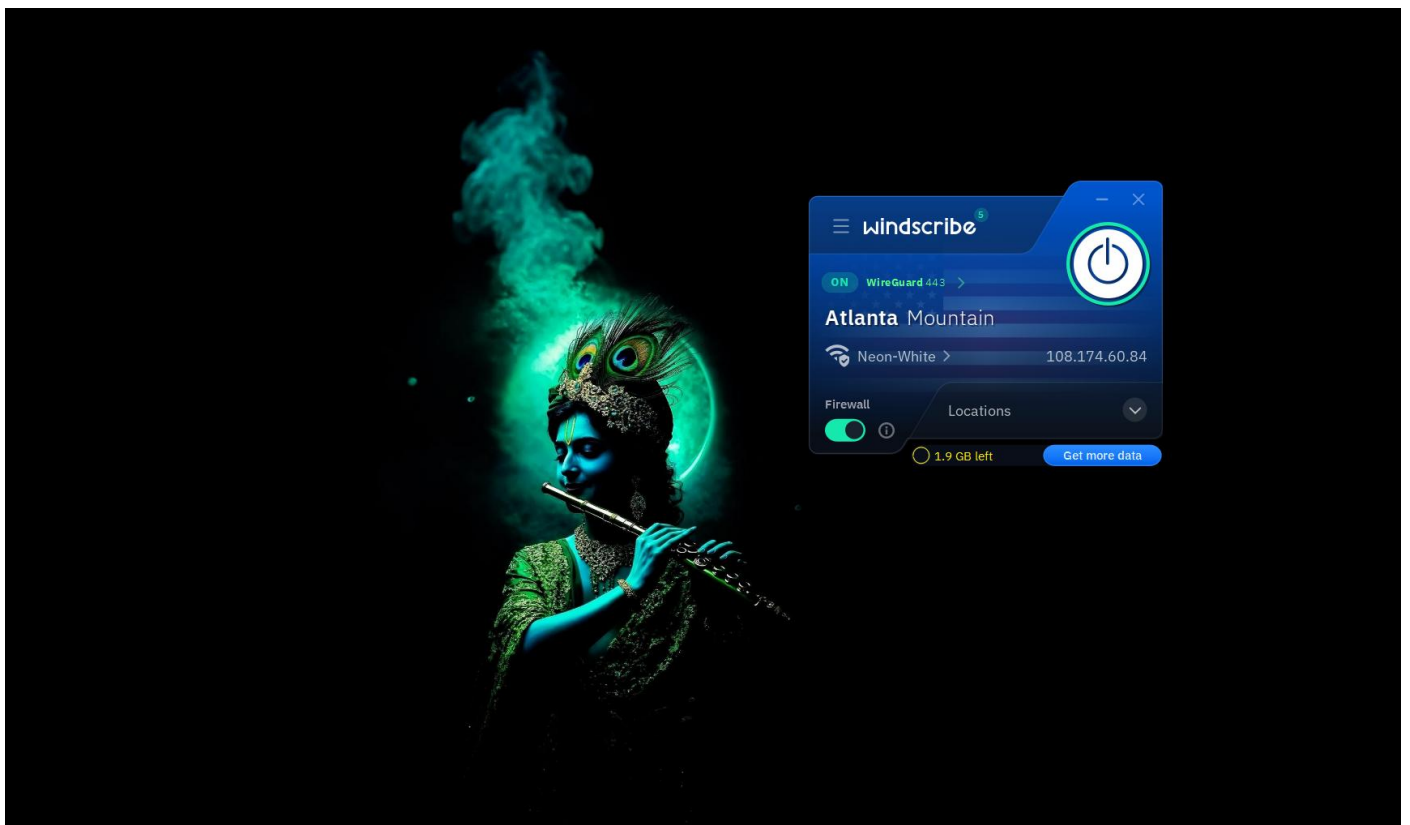
Step 3: Now, we will CHOOSE any Location to set-up a Virtual Private Network.

Step 4: Then we will, CHECK that our VPN is Working or NOT.

Step 5: Then we will, Perform SPEED-TEST of Working VPN.

Step 6: Then, Perform DNS-Leak Test from: https://www.dnsleaktest.com
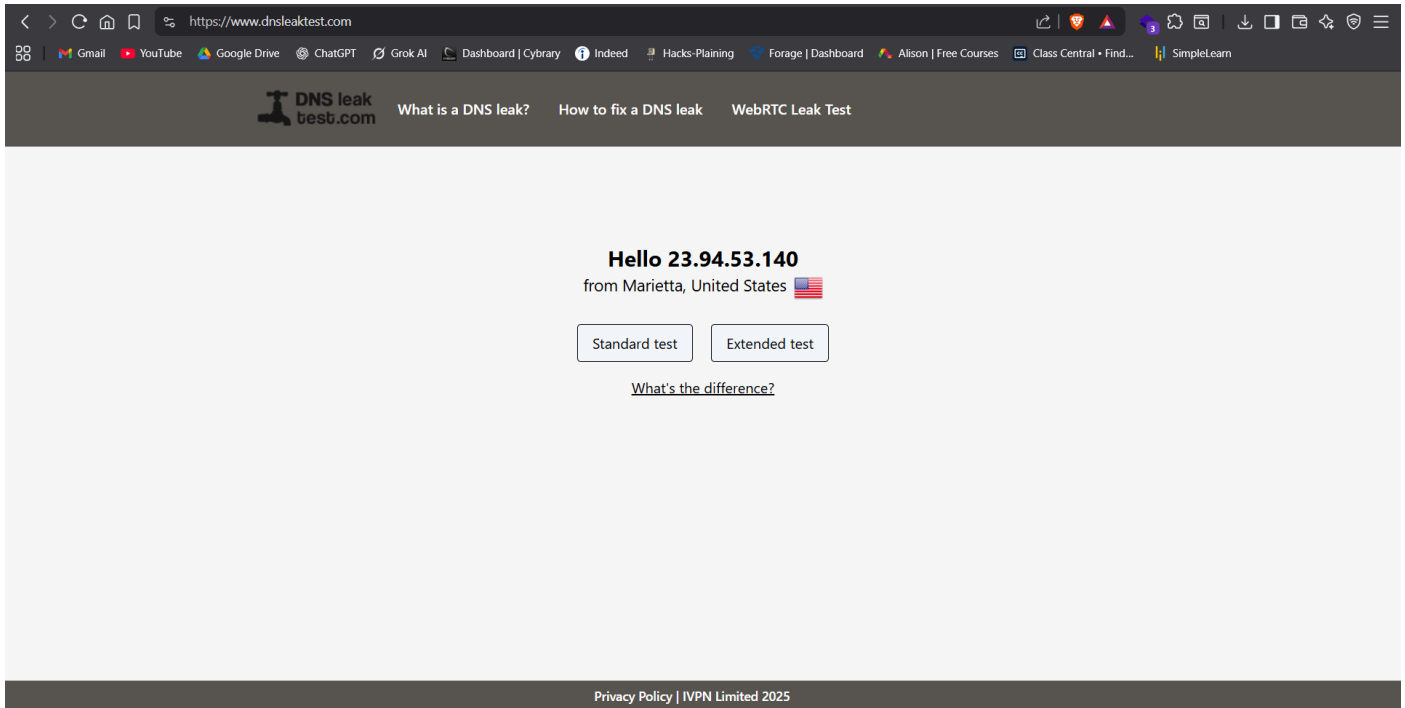
Step 7: At-Last, we will CHECK that Virtual Private Network uses (HTTPS) Secure Protocol for Network Traffic.
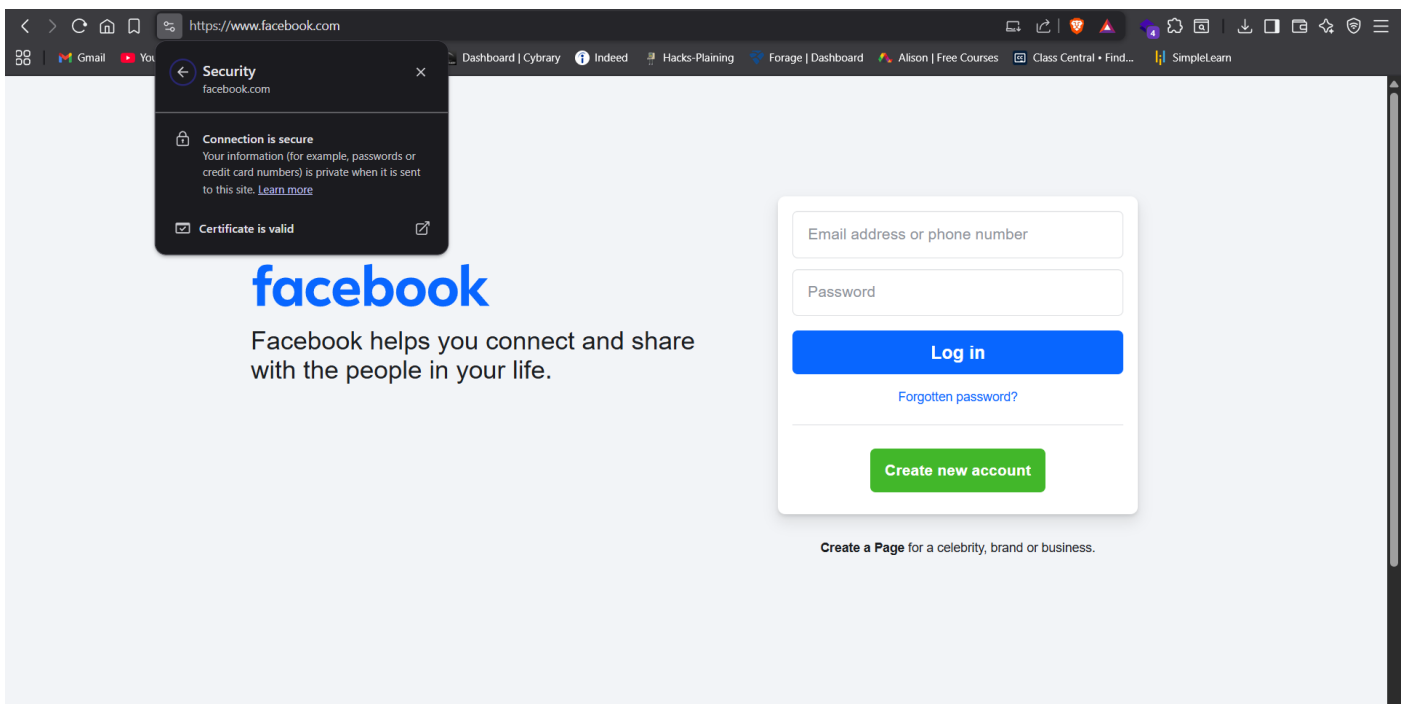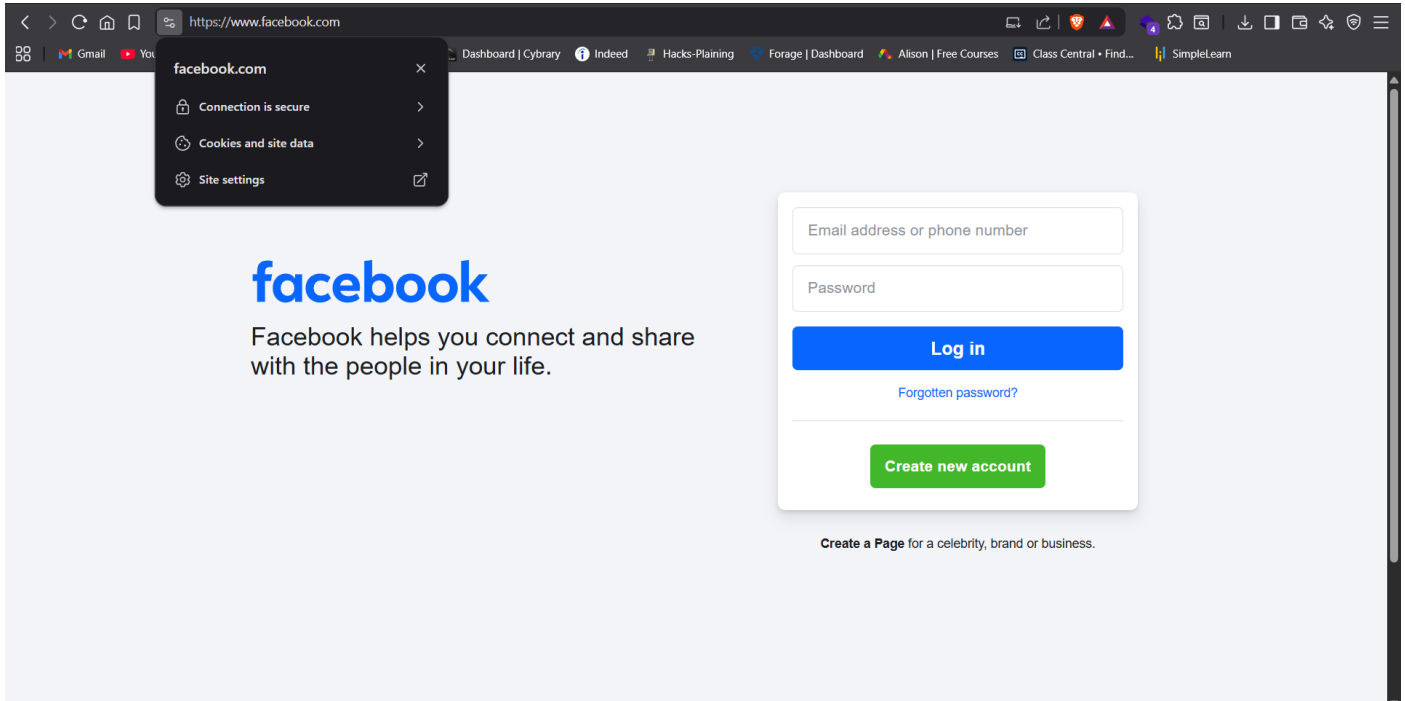
Step 8: (Optional), we can CHECK (VPN – Virtual Private Network) Configurations through CLI – Command Line based on your Operating System (OS).

```
Command Prompt          ×   +   ∨

Microsoft Windows [Version 10.0.26100.4946]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Neon-White>ipconfig

Windows IP Configuration


Ethernet adapter Ethernet:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Unknown adapter WindscribeWireguard:

   Connection-specific DNS Suffix  . :
   IPv4 Address. . . . . . . . . . . : 100.119.204.134
   Subnet Mask . . . . . . . . . . . : 255.255.255.255
   Default Gateway . . . . . . . . . :
```

```
Command Prompt          ×   +   ∨

C:\Users\Neon-White>ping -4 google.com

Pinging google.com [74.125.138.102] with 32 bytes of data:
Reply from 74.125.138.102: bytes=32 time=619ms TTL=106
Reply from 74.125.138.102: bytes=32 time=266ms TTL=106
Reply from 74.125.138.102: bytes=32 time=260ms TTL=106
Reply from 74.125.138.102: bytes=32 time=304ms TTL=106

Ping statistics for 74.125.138.102:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 260ms, Maximum = 619ms, Average = 362ms
```

Step 9: Now, we will OFF the Windscribe VPN & Check out IP-Address.
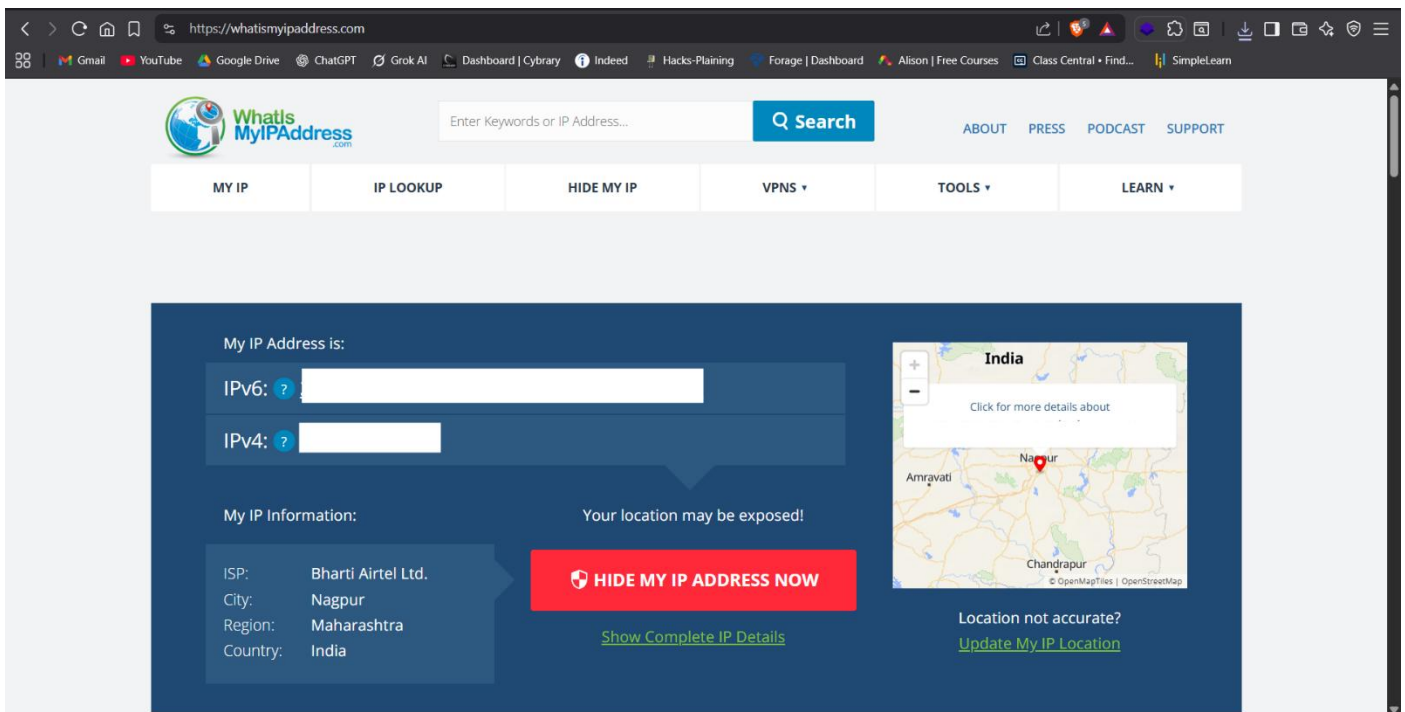
Step 10: At-Last, now we will PERFORM (Speed-Test) while VPN is OFF.
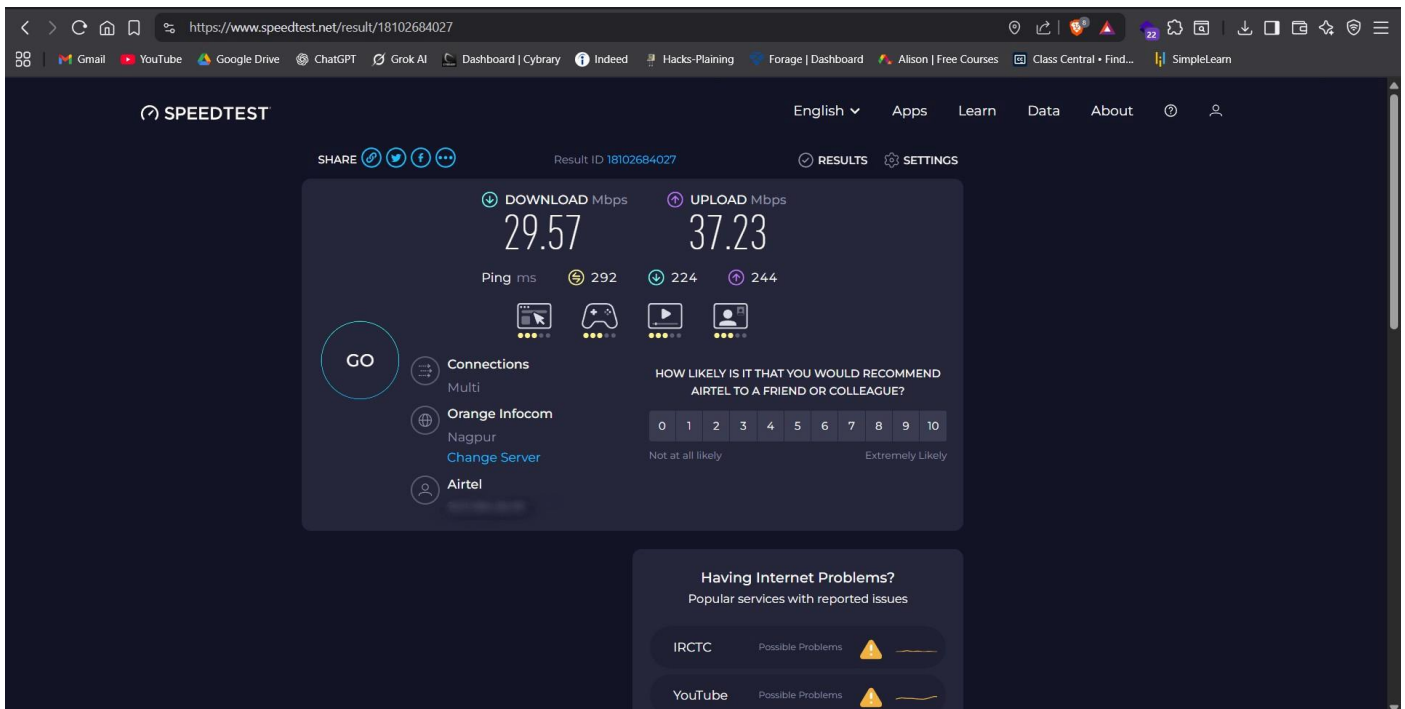
Benefits

- **IP masking & location privacy** (sites see VPN exit IP, not your home IP).

- **Encryption on untrusted networks** (e.g., public Wi-Fi) between you and the VPN server.

- **Bypass local blocking/geo-restrictions** in some cases.

- **Throttling avoidance** (sometimes) if ISP throttles certain categories.

Limitations

- **Trust shift**: You must trust the VPN provider more than your ISP/local network.

- **Not a magic cloak**: Browser logins, cookies, and fingerprinting can still identify you.

- **Performance overhead**: Added latency; possible speed reduction, especially on distant servers.

- **Geo-services and streaming** may block known VPN IP ranges.

- **Legal/Policy constraints**: Some regions restrict VPN use—know your local laws and terms.